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NATIONAL SURVEY

of

THE ECONOMIC STATUS OF THE HORSE

By

The Green, Fulton, Cunningham Co.

Detroit **Chicago**

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Chart *1

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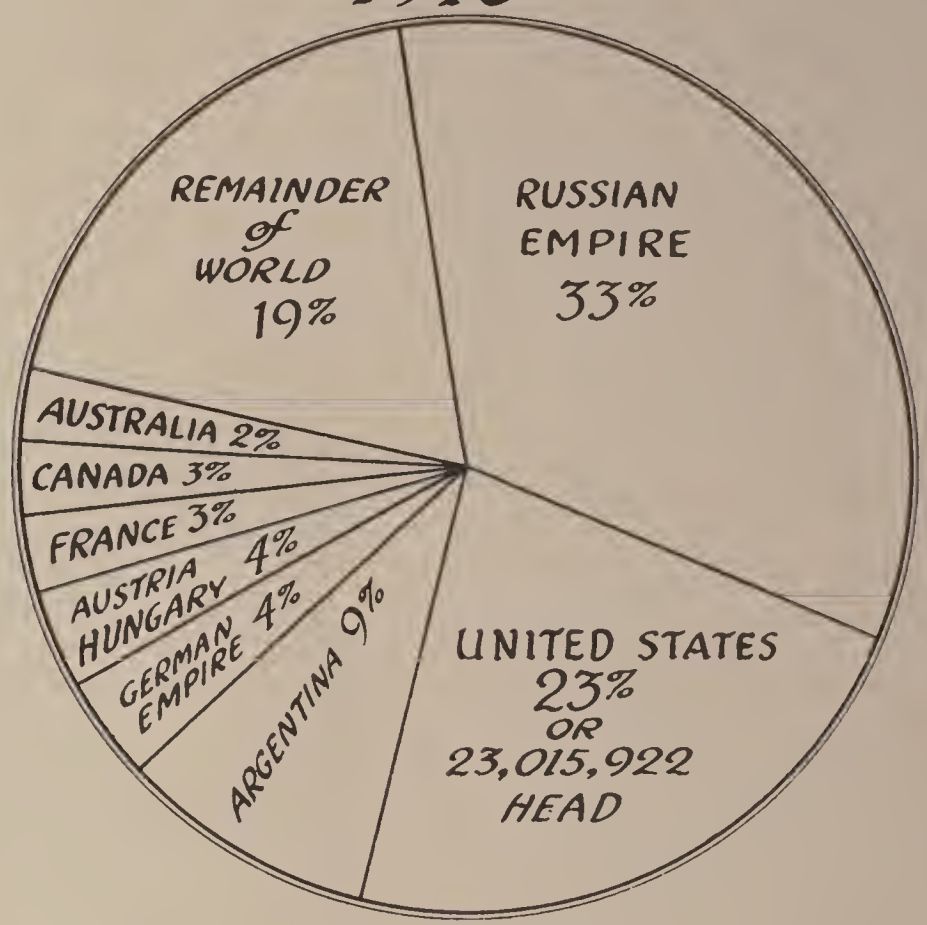
World Population ~ Horses
105,400,000 Head
1910



1030
1262

In 1910 the population of the United States as compared with the population of the balance of the world was approximately 6%; the land area of the United States as compared with the land area of the balance of the world was about 7% ~ notwithstanding 23% of the entire horse population of the world was within the borders of Continental United States. The world total was 105,400,000 head; The horse population of the United States 23,015,922 head. Approximately 86% of the horses in this country were on our farms and ranges ~ the remaining 14% were not on farms but engaged principally in transportation work in the cities.

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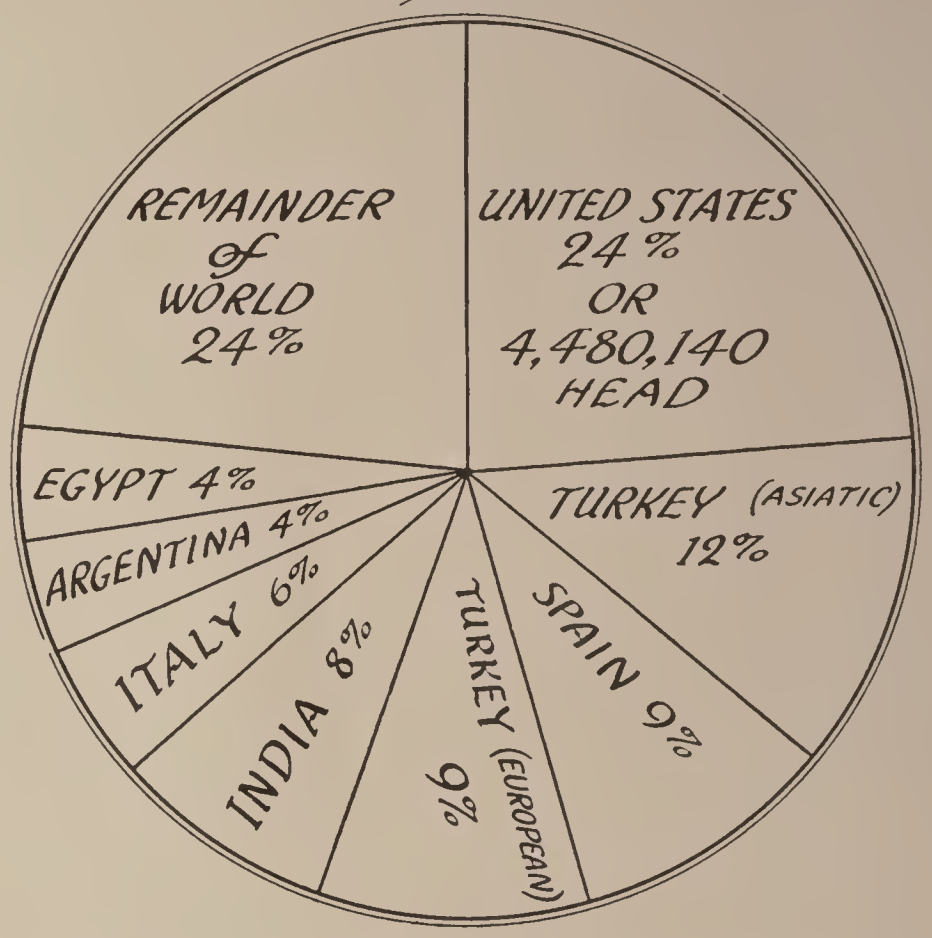
Detroit ~ Chicago

JAN 16 1920

Chart #2 World Population~Mules and Asses 20,000,000 Head 1910



In 1910, of the 20,000,000 mules and asses in the world 4,480,140 head or approximately 24% were within the borders of Continental United States. In the United States they were not distributed anywhere nearly equal among the several states, but were found to be in greatest numbers in the states east of the rockies and particularly in the southern states. All but 270,000 of the mules in the United States were on our farms and ranges

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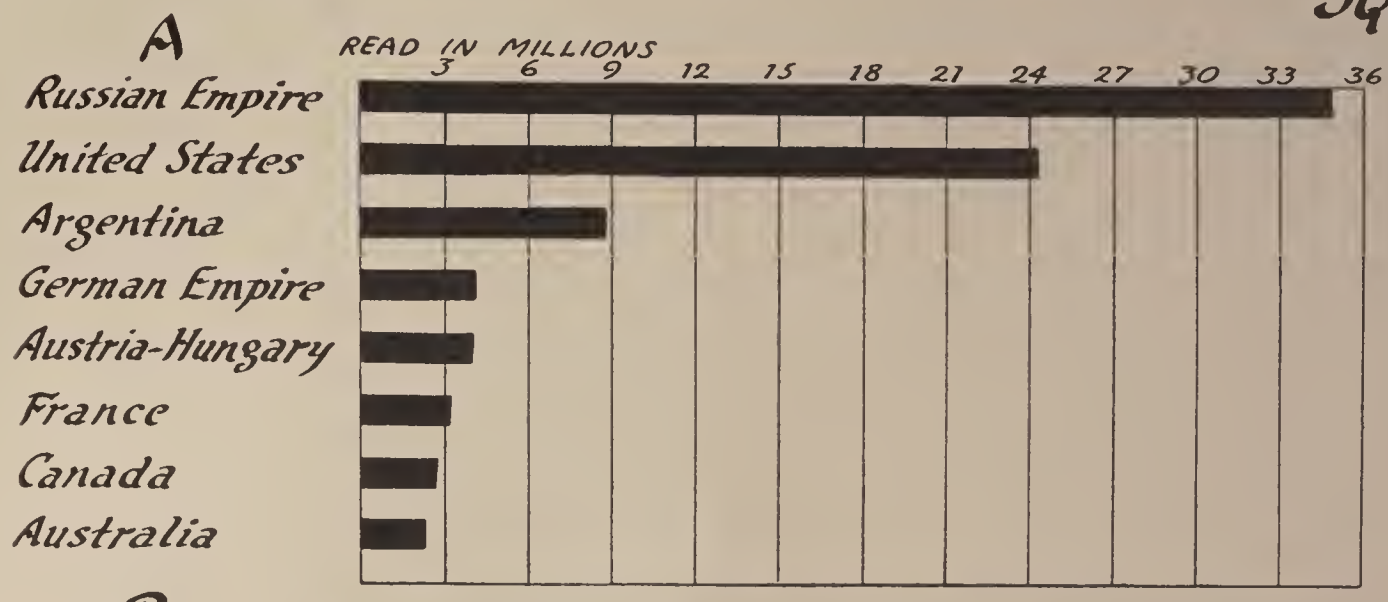
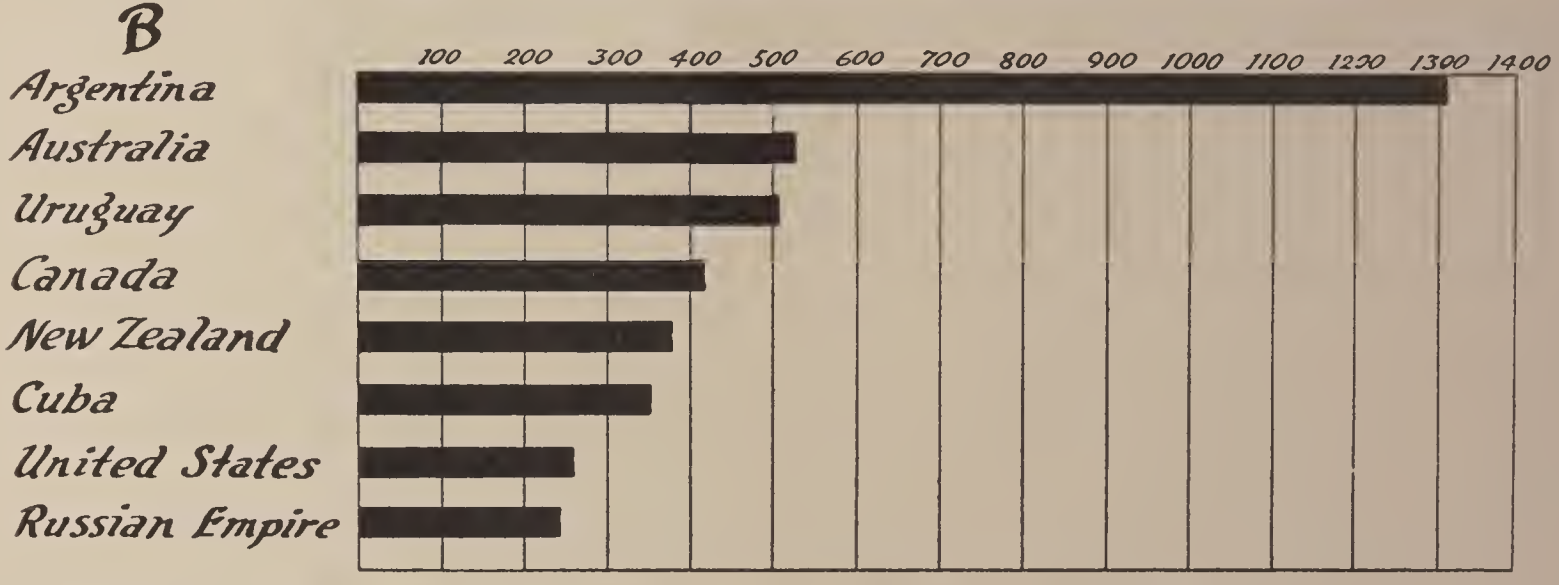
Chart #3

(A) Leading Countries in Horse Population
(B) " " " Horses per 1000 Persons
(C) " " " " " Square Mile





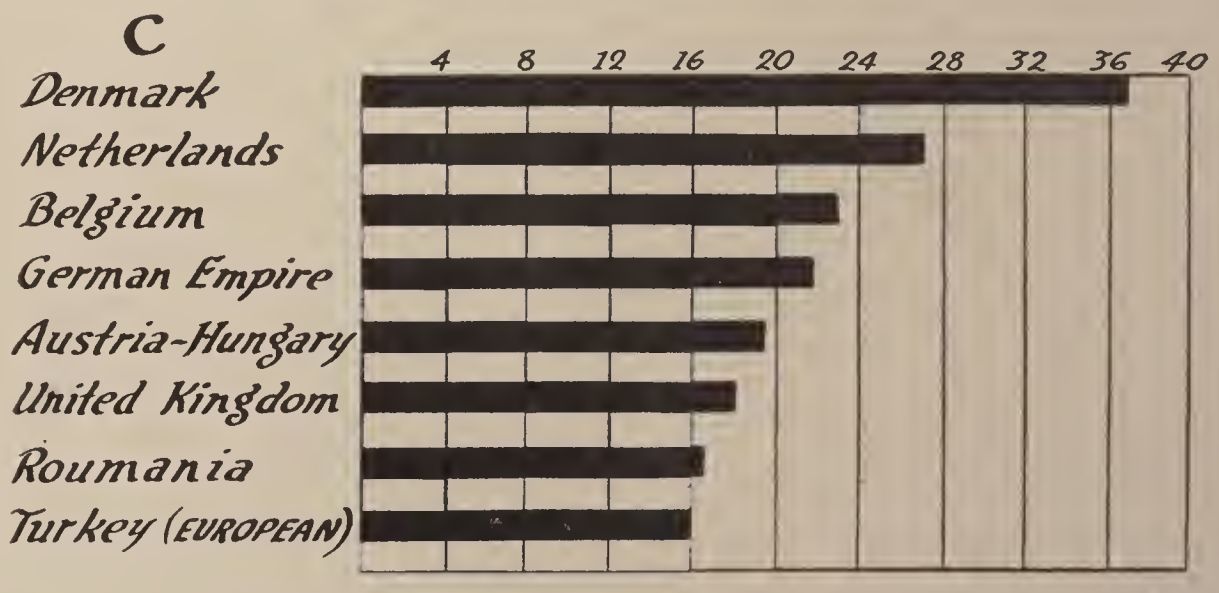


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Chart #4

(A) Leading Countries in Mule Population
(B) " " "Mules per 1000 Persons
(C) " " " " "Square Mile

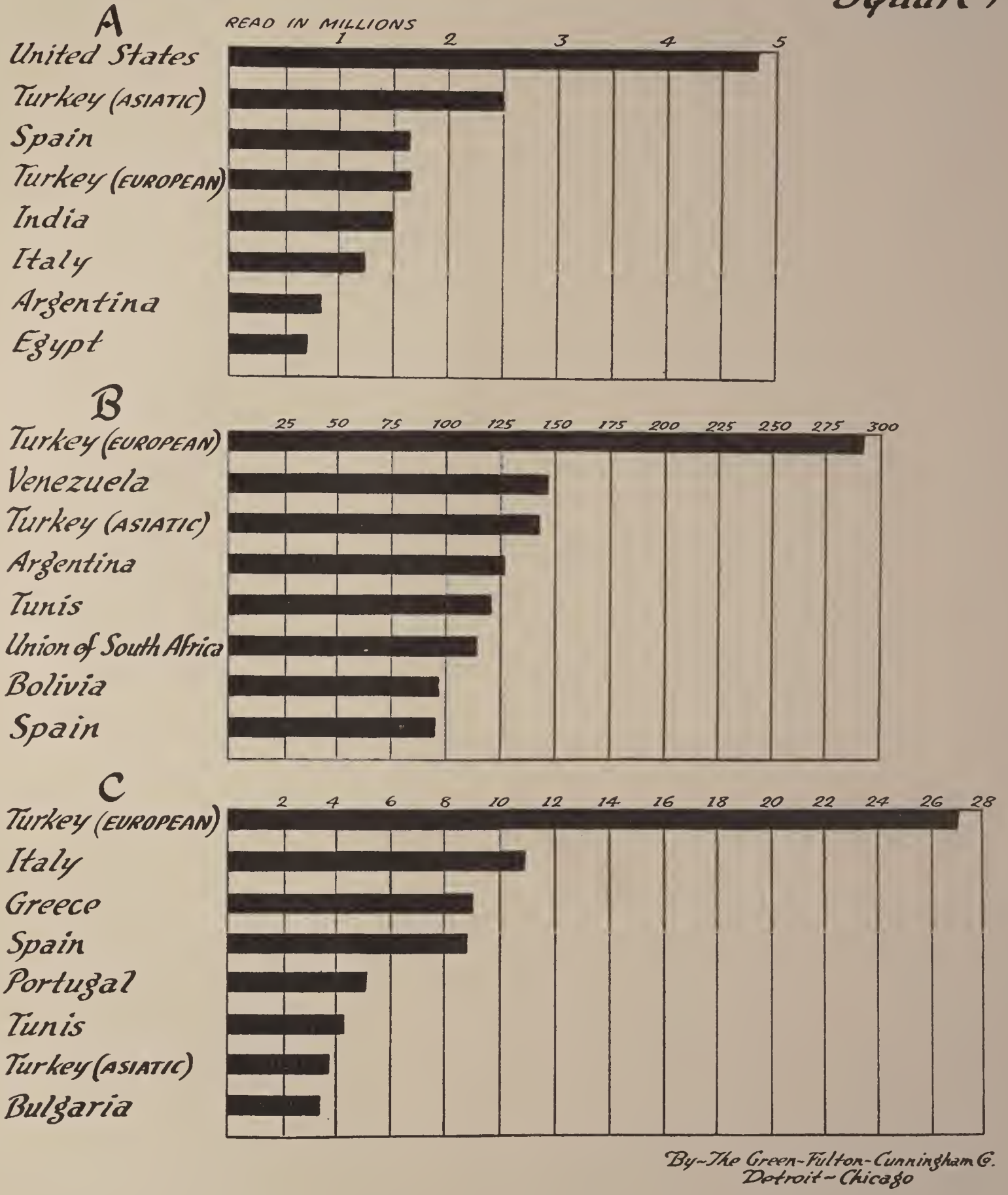

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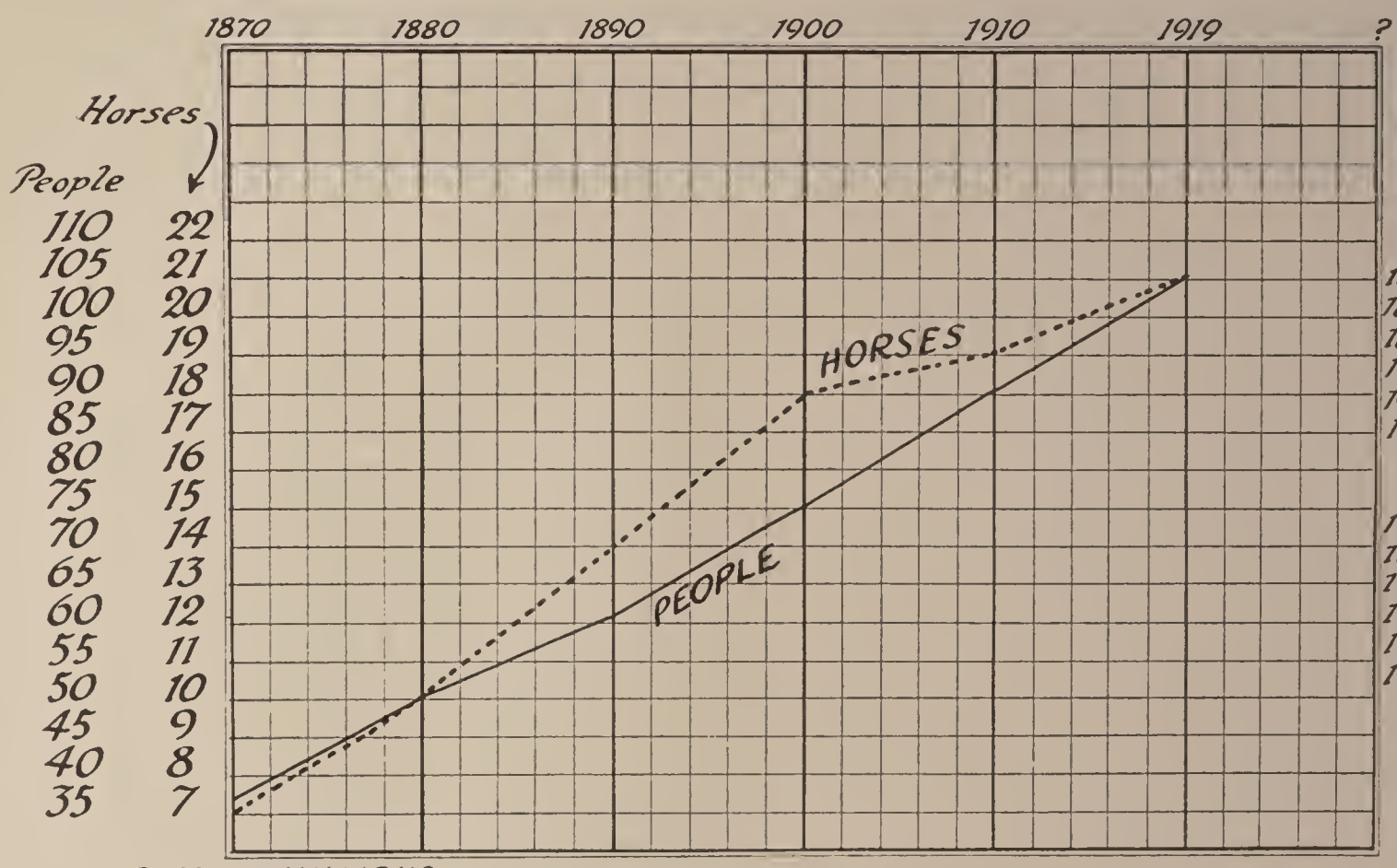
Chart 5

1870~1919
Increase in Number of Horses Compared With Increase in population United States



READ IN MILLIONS

Population	
1870	38,558,000
1880	50,155,000
1890	62,947,000
1900	75,994,000
1910	91,972,000
1919	105,118,000

Horses	
1870	7,145,000
1880	10,357,000
1890	14,969,000
1900	18,267,000
1910	19,833,000
1919	21,534,000

1870~1880
Population increase 30.%
Horse increase 44.9%

1880~1890
Population increase 25.5%
Horse increase 44.5%

1890~1900
Population increase 20.7%
Horse increase 22.%

1900~1910
Population increase 21.%
Horse increase 8.5%

1910~1919
Population increase 14.2%
Horse increase 8.%

Average 10year increase
Population increase 22.2%
Horse increase 25.5%

1870~1919
Population increase 172.6%
Horse increase 203.3%

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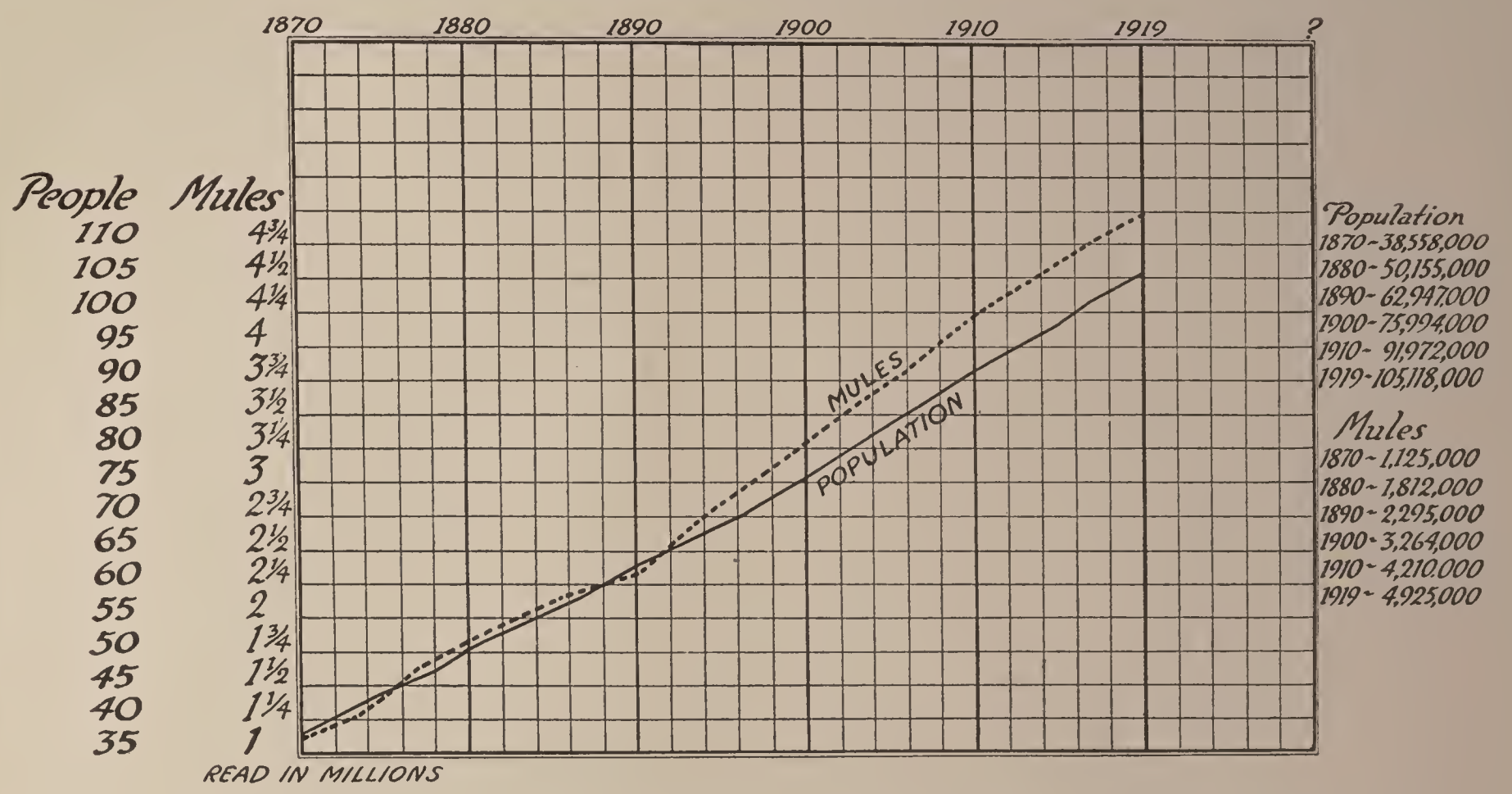
Chart #6

1870-1919
Increase in Number of Mules Compared With Increase in Population United States



Population
1870-38,558,000
1880-50,155,000
1890-62,947,000
1900-75,994,000
1910-91,972,000
1919-105,118,000

Mules
1870-1,125,000
1880-1,812,000
1890-2,295,000
1900-3,264,000
1910-4,210,000
1919-4,925,000

1870-1880
Population increase 30.%
Increase in number of mules 60.9%

1880-1890
Population increase 25.5%
Increase in number of mules 26.6%

1890-1900
Population increase 20.7%
Increase in number of mules 42.2%

1900-1910
Population increase 21.%
Increase in number of mules 28.9%

1910-1919
Population increase 14.2%
Increase in number of mules 16.9%

Average 10 year increase
Population increase 22.2%
Increase in number of mules 35.1%

1870-1919
Population increase 172.6%
Increase in number of mules 337.7%

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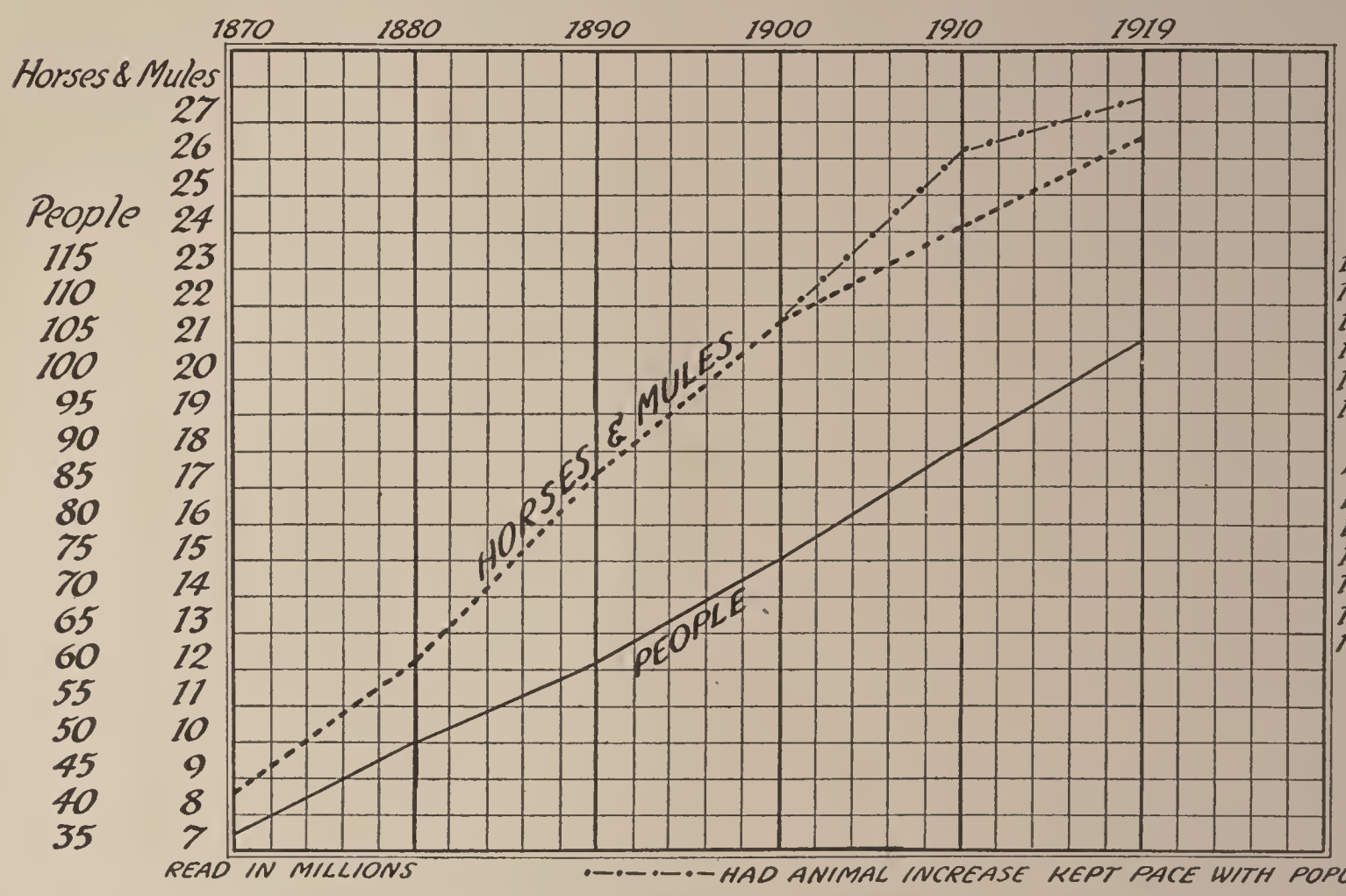
Chart #7

1870-1919
Increase in Number of Horses, Mules Compared With Increase in Population—United States



Population	
1870	38,558,000
1880	50,155,000
1890	62,947,000
1900	75,994,000
1910	91,972,000
1919	105,118,000

Horses-Mules	
1870	8,370,000
1880	12,169,000
1890	17,264,000
1900	21,531,000
1910	24,043,000
1919	26,459,000

READ IN MILLIONS

•—•—•—•— HAD ANIMAL INCREASE KEPT PACE WITH POPULATION INCREASE.

1870-1880
Population increase 30%
Horse & Mule increase 46%

1880-1890
Population increase 25.5%
Horse & Mule increase 41.8%

1890-1900
Population increase 20.7%
Horse & Mule increase 24.1%

1900-1910
Population 21% increase
Horse & Mule increase 11.6%

1910-1919
Population increase 14.2%
Horse & Mule increase 10%

Average 10 year increase
Population increase 22.2%
Horse & Mule increase 26.5%

1870-1919
Population increase 172.6%
Horse & Mule increase 228%

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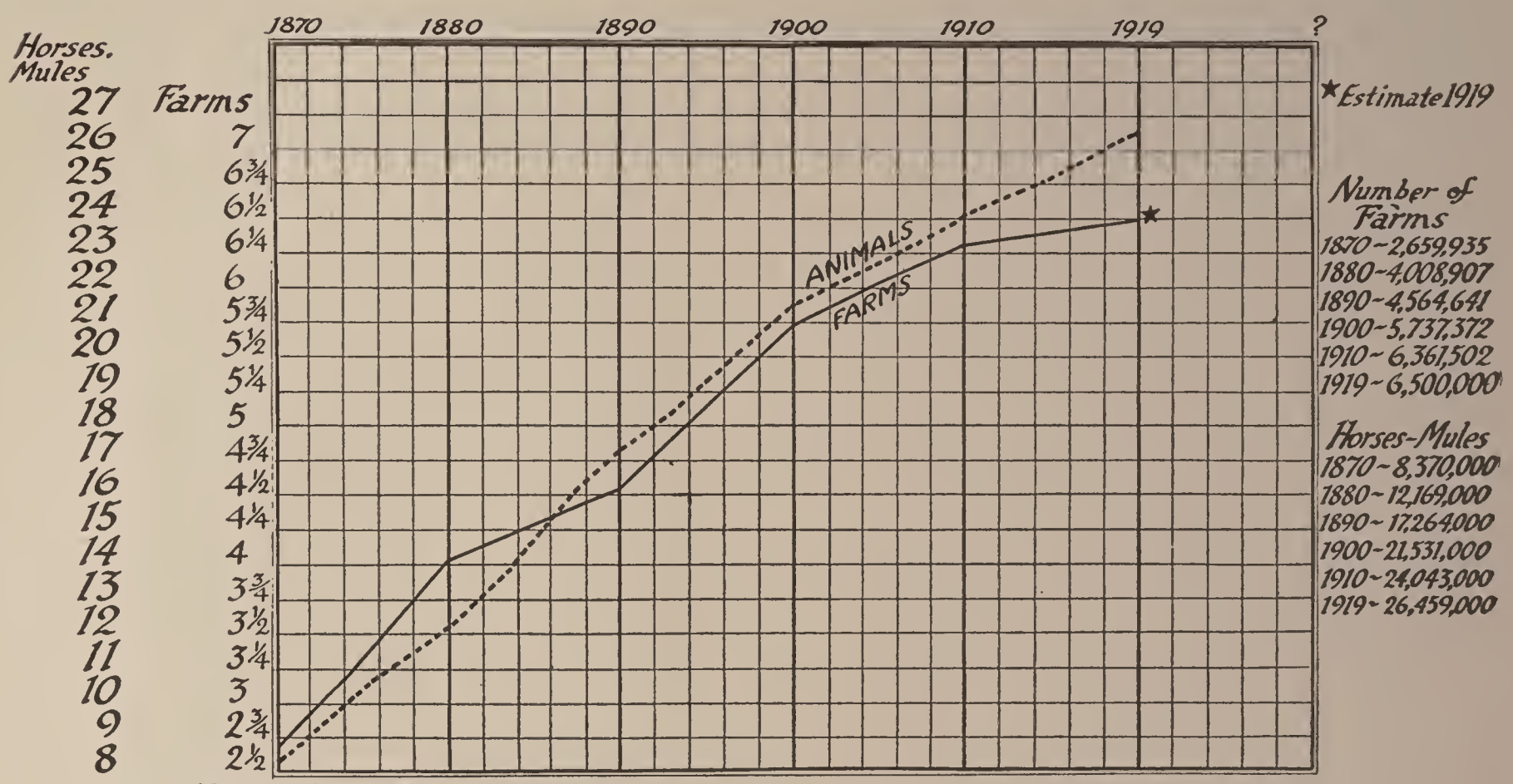
Chart #8

1870-1919
Increase in Number of Horses, Mules Compared With Increase in Number of Farms



★Estimate 1919

Number of Farms
1870 - 2,659,935
1880 - 4,008,907
1890 - 4,564,641
1900 - 5,737,372
1910 - 6,361,502
1919 - 6,500,000

Horses-Mules
1870 - 8,370,000
1880 - 12,169,000
1890 - 17,264,000
1900 - 21,531,000
1910 - 24,043,000
1919 - 26,459,000

1870-1880
Increase in farms 50.7%
Increase horses and mules 45.3%

1880-1890
Increase in farms 13.8%
Increase horses and mules 41.8%

1890-1900
Increase in farms 25.6%
Increase horses and mules 24.1%

1900-1910
Increase in farms 10.8%
Increase horses and mules 11.6%

1910-1919
Increase in farms 2.1%
Increase horses and mules 10.%

Average 10 year increase
Increase in farms 20.6%
Increase horses and mules 26.5%

1870-1919
Increase in farms 144.3%
Increase horses and mules 228.%

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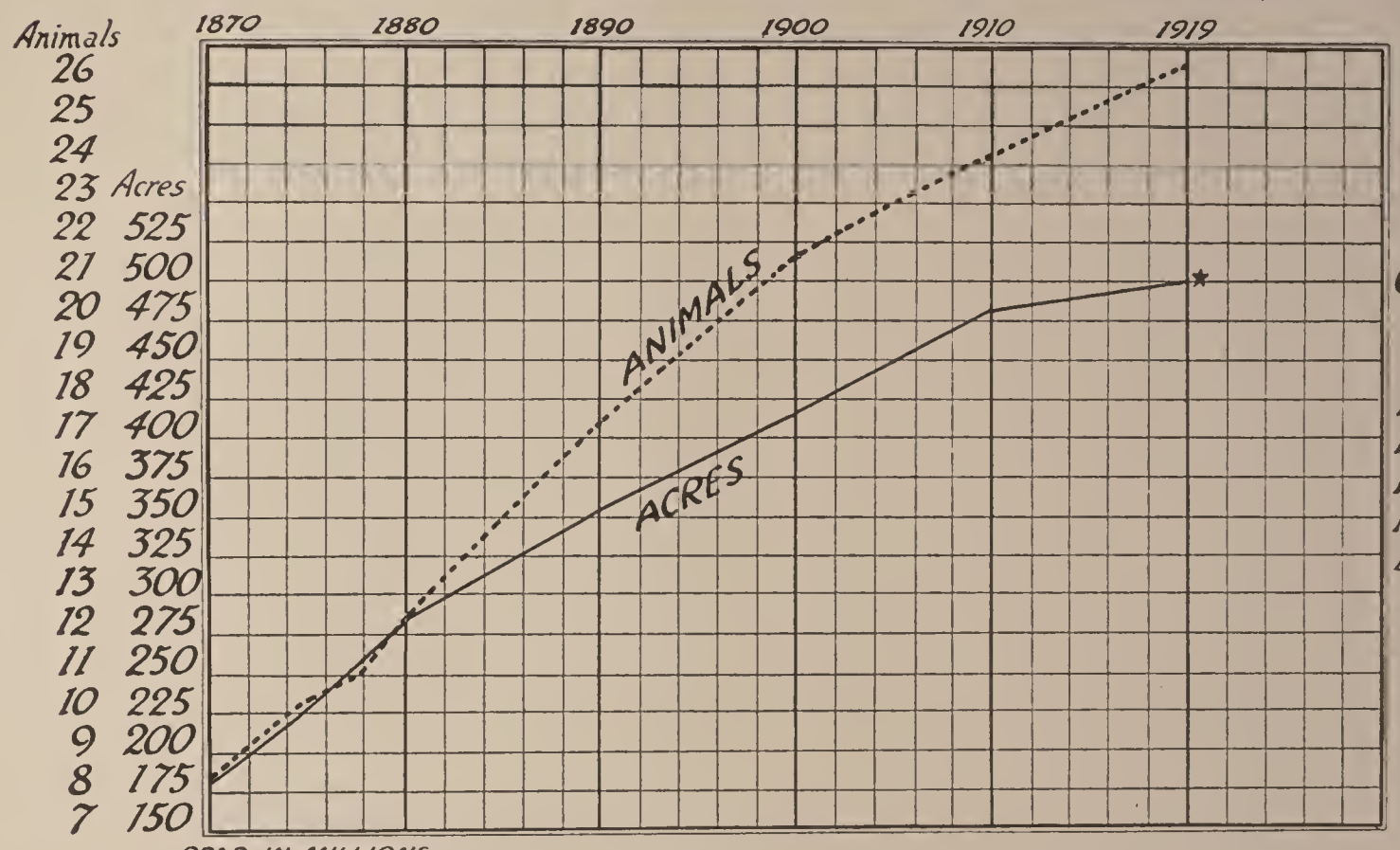
Chart # 9

1870~1919
Increase in Number of Horses, Mules Compared With Increase in Improved Acres

The increase in work animals has kept close step with the development of our arable lands.
In 1870 there was a horse or mule in the farmers hands for every 22.5 acres of improved land. In 1880 the ratio was 1 to 23.4 acres. In 1890 it was 1 to 20.7 acres. In 1900~1 to 19.2 acres, and in 1910 there was 1 work animal to every 19.8 acres of improved land.



★ Estimate 1919

% Increase or Decrease Over Previous Period

	ACRES	ANIMALS
1880	50.7%	46.4%
1890	25.2%	41.8%
1900	15.8%	24.1%
1910	15.4%	11.6%
1919	4.5%	10. %

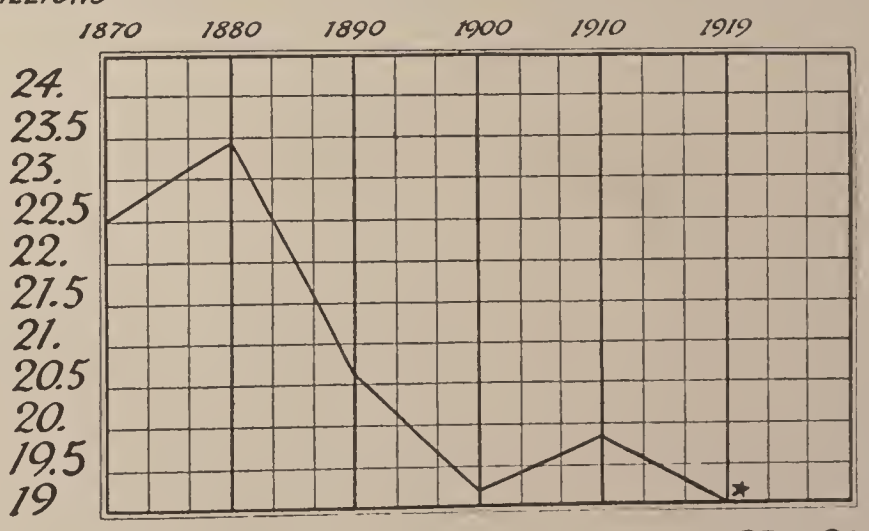


Chart # 8~A

Number of Improved Acres per Each Work Animal

★ Estimate 1919

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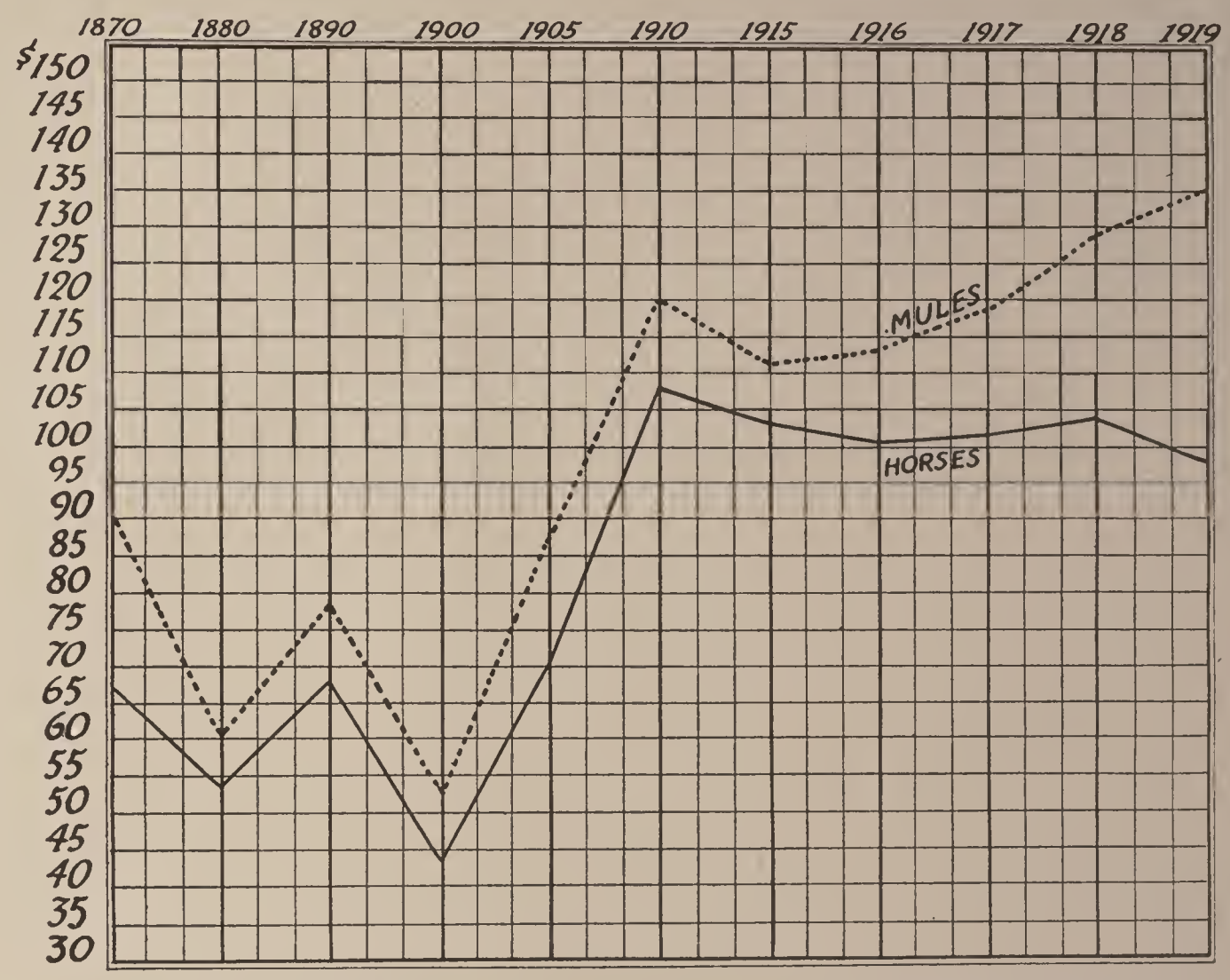
Detroit ~ Chicago

Chart #10

1870-1919
Average Value of Farm Horses-Mules
Every 10 years 1870-1900
" 5 " 1900-1915
Yearly 1915-1919



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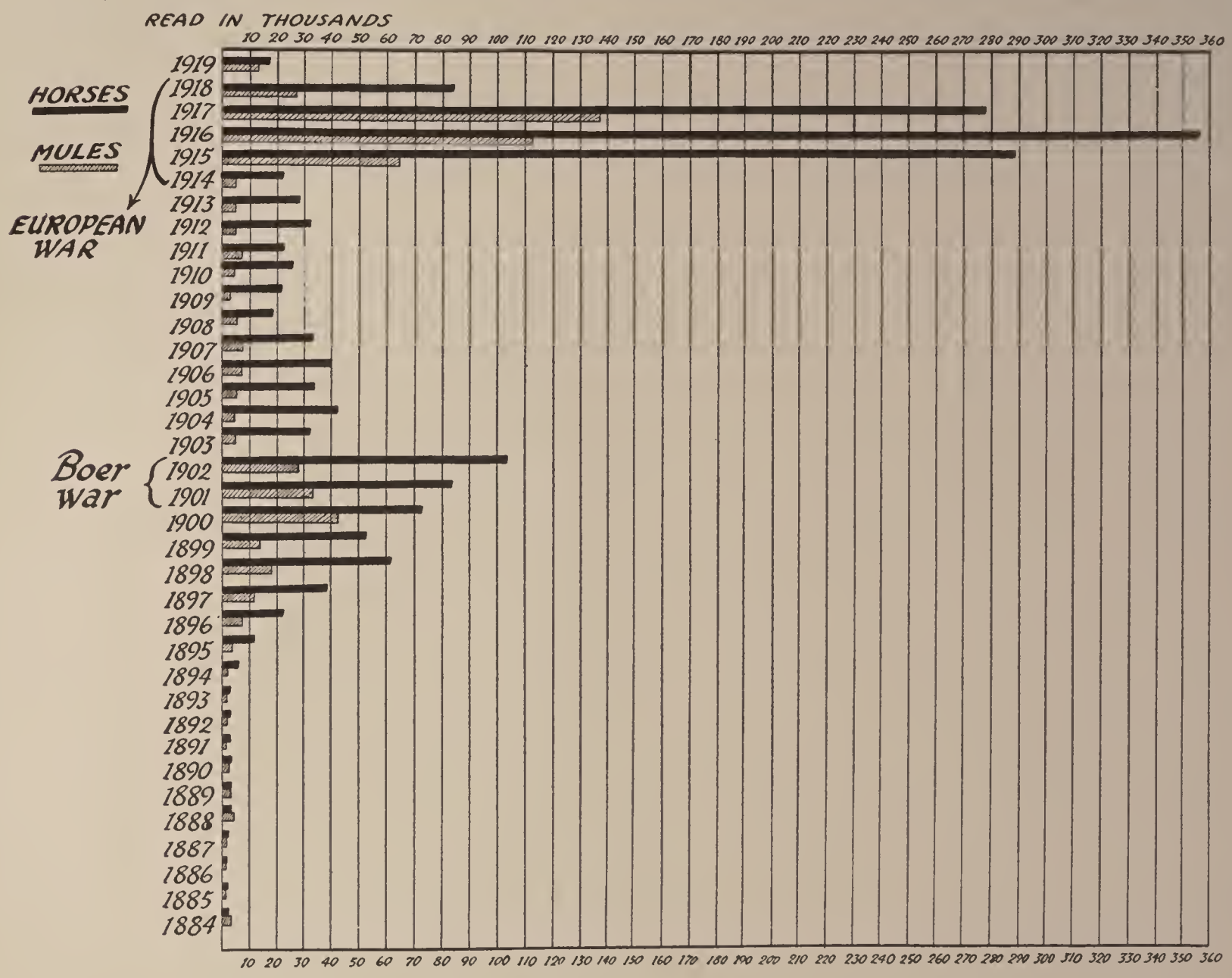
Horses Value		Average		Mules
$67	—	1870	—	$90
54	—	1880	—	61
68	—	1890	—	78
44	—	1900	—	53
70	—	1905	—	87
108	—	1910	—	120
103	—	1915	—	112
101	—	1916	—	113
102	—	1917	—	118
104	—	1918	—	128
98	—	1919	—	135

Exports
Chart #11

Number of Horses and Mules Exported Yearly 1884 to 1919 Incl.



Under normal conditions exports decrease as our agricultural development expanded~During years of greatest agricultural development exports were smallest.

Yearly exports prior to 1895-less than 10,000 head

Average yearly exports
1904 to 1913
30,900 horses
5,432 mules

Average yearly exports
1914 to 1918
235,786 head, or less than 1% of number of horses and mules on our farms Jan. 1st 1919.

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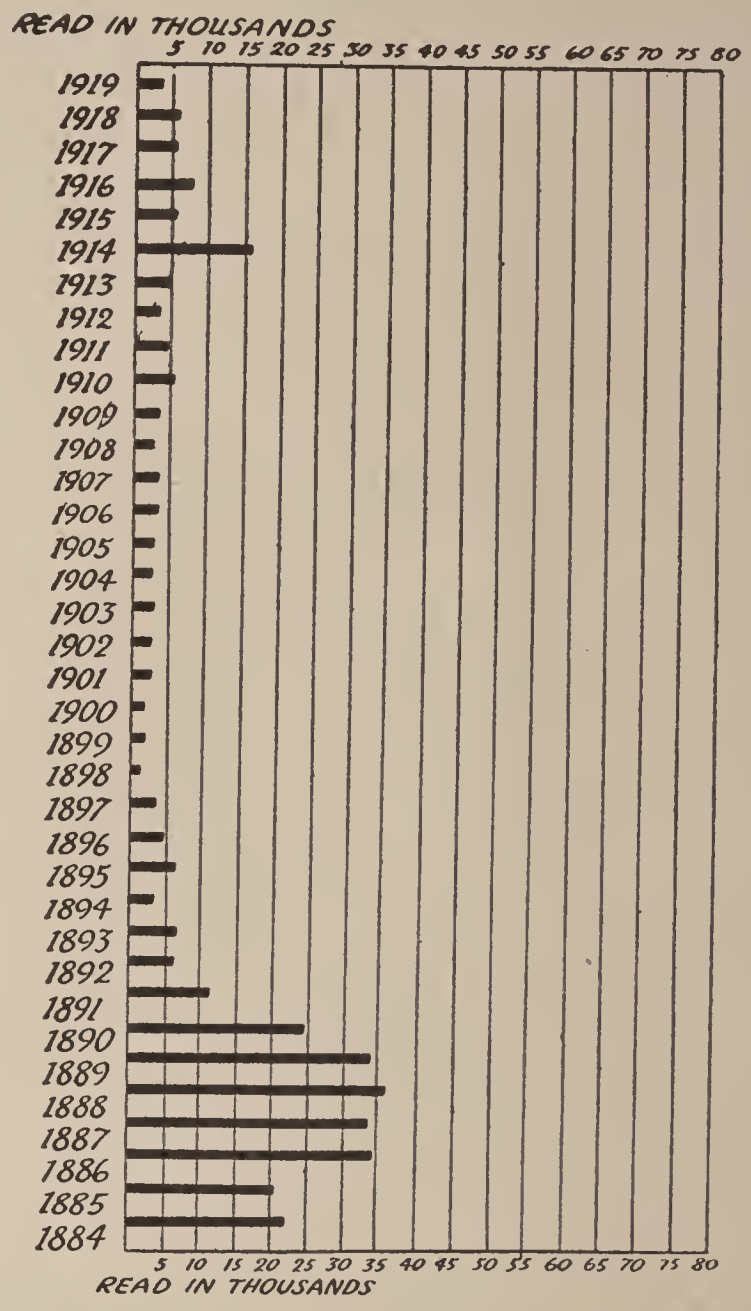
Detroit~Chicago

Chart #12

Number of Horses Imported Yearly 1884 to 1919 Incl.



During the years of our greatest agricultural development imports were largest. The reduction following 1890 indicates a condition of domestic oversupply due to a falling off in the very rapid agricultural development of the United States~1880~1890.

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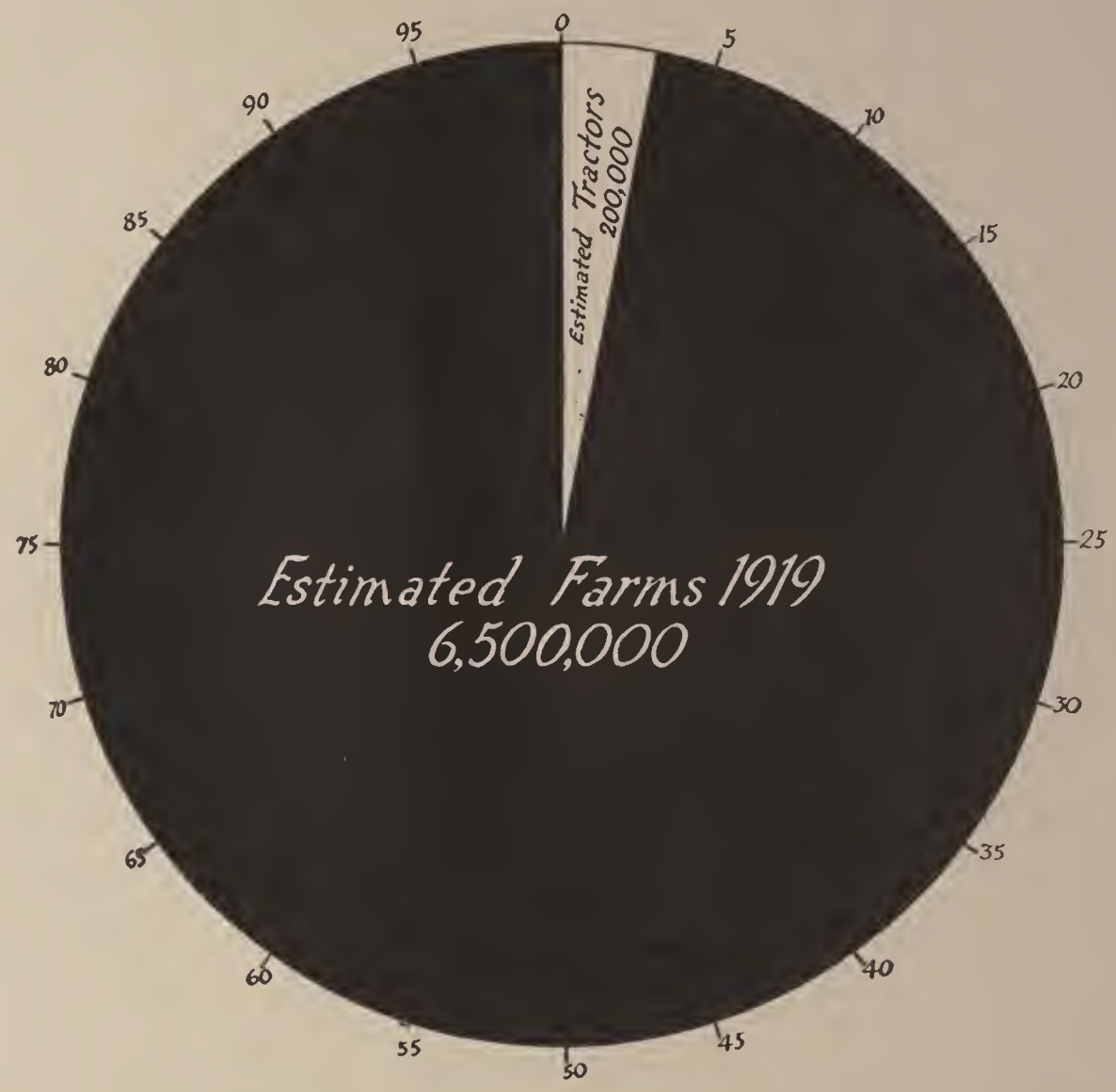
Detroit~Chicago

Chart #13

Contrasting Estimated Number of Tractors in Use 1919 With Estimated Number of Farms 1919



Estimated Number of farms 1919 (conservative) 6,500,000
" " " tractors in use 1919 (liberal) 200,000

One tractor on every 32½ farms
About 3% of the farms operate tractors

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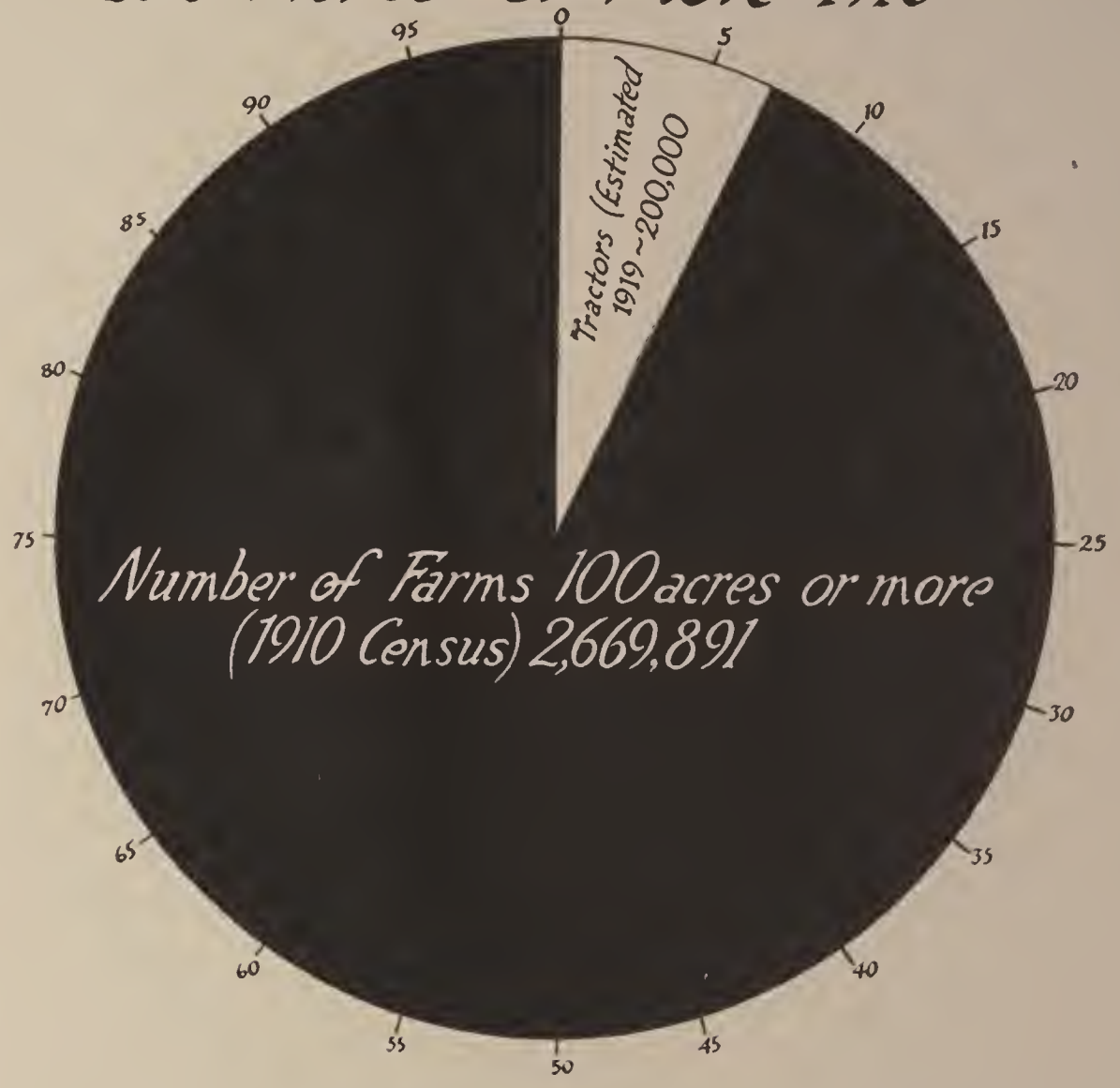
Detroit-Chicago

Chart #14

Contrasting the Number of Tractors in Use 1919 With Number of Farms 100 Acres or More-1910



Number of farms 100 acres or more (1910) 2,669,891

Number of tractors (1919) estimate 200,000

One tractor on every 13 farms of 100 acres or more. About 7% of such farms have a tractor.

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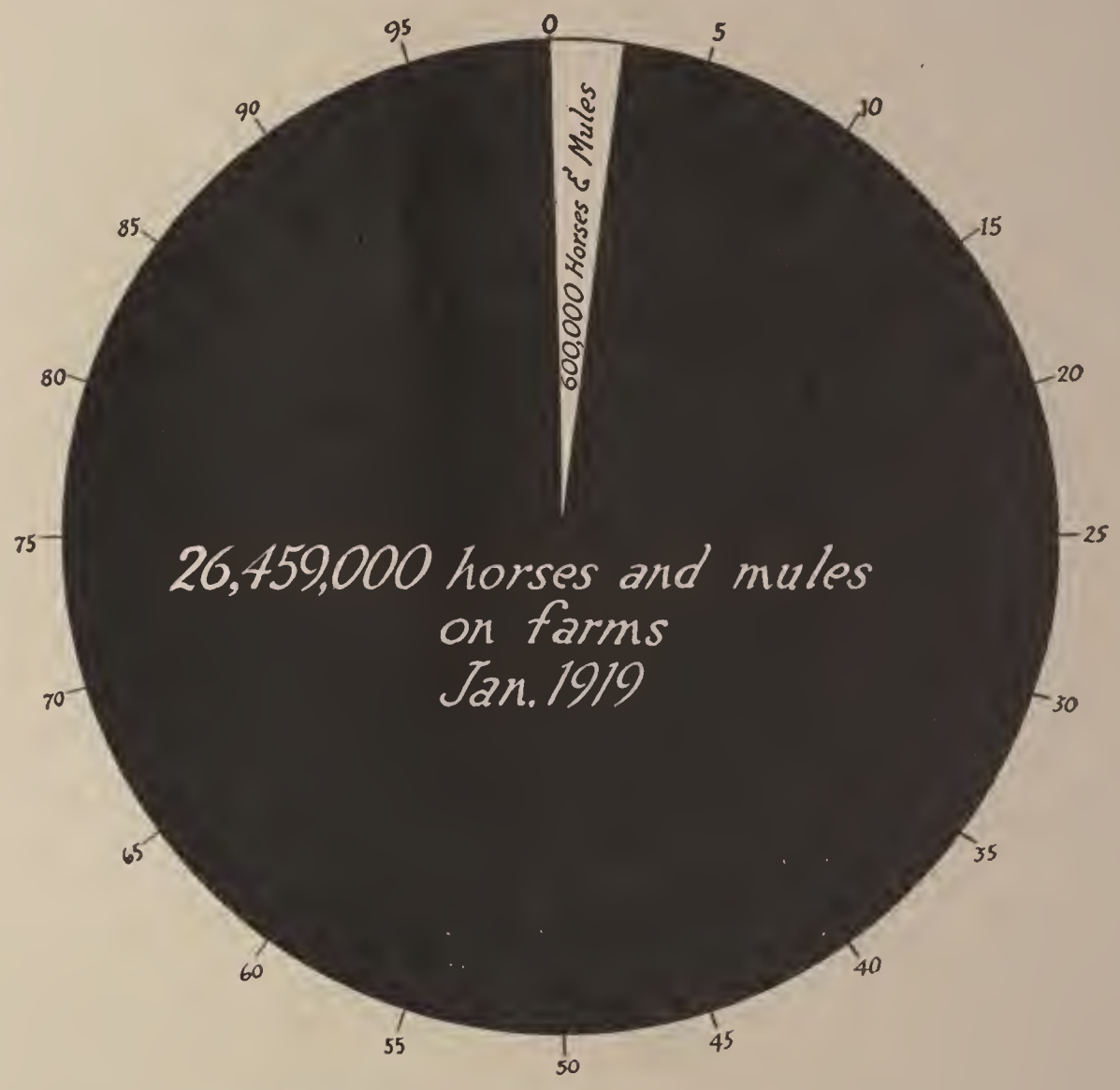
Chart #15

Contrasting Estimated Number of Animals Displaced by Tractors With Total Work Animal Population. Granting That Each Tractor Has Displaced 3 Horses or Mules ~ The Number Displaced Would be 2.2% of the Total Number of Horses~Mules on Farms 1919



Number of tractors 200,000
Horses~mules displaced by each tractor 3 head
total displacement 2.2%

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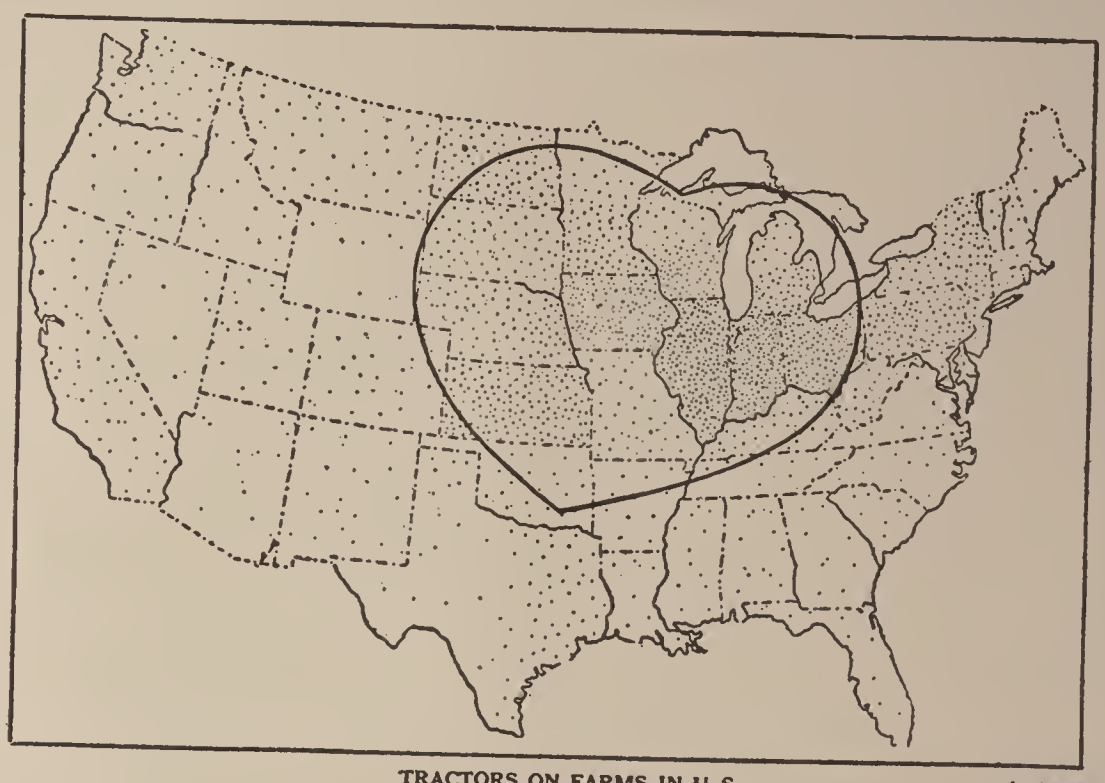
Detroit ~ Chicago

Chart* 15(A)

Distribution of Tractors 1919, and What Happened to the Horse and Mule in the Principal Tractor States-1910-1919



TRACTORS ON FARMS IN U. S.
One Dot Equals 100 Tractors

TRACTORS

Successful Farming's Territory

Illinois	23,210
Indiana	18,990
Iowa	21,100
Kansas	16,880
Mich.	6,330
Minn.	8,440
Mo.	4,220
Nebr.	8,440
N. Dak.	8,440
Ohio	12,660
Okla.	2,110
S. Dak.	6,330
Wis.	10,550
Total	147,700

States Bordering on Heart States

Arkansas	1,055
Colorado	2,110
Mont.	4,220
N. Y.	7,913
Penn.	8,967
Texas	6,330
W. Va.	2,639
Wyoming	269
Total	36,668
Balance of U. S.	26,632

In the Heart	147,700
States Bordering	36,668
Balance of U. S.	26,632
Total	211,000

Courtesy Successful Farming

981,986 more horses-mules in the principal tractor states than there were in 1910.

	NUMBER-HORSES & MULES 1910	1919
Illinois	1,600,700	1,614,000
Indiana	895,812	923,000
Kansas	1,335,465	1,413,000
Iowa	1,547,750	1,635,000
Ohio	933,074	919,000
Wisconsin	617,526	697,000
North Dakota	658,294	858,000

	NUMBER-HORSES & MULES 1910	1919
Michigan	613,733	670,000
Minnesota	758,959	956,000
Missouri	1,416,087	1,414,000
Nebraska	1,091,783	1,158,000
Oklahoma	1,000,025	1,032,000
South Dakota	681,786	843,000
TOTAL	13,151,014	~14,133,000

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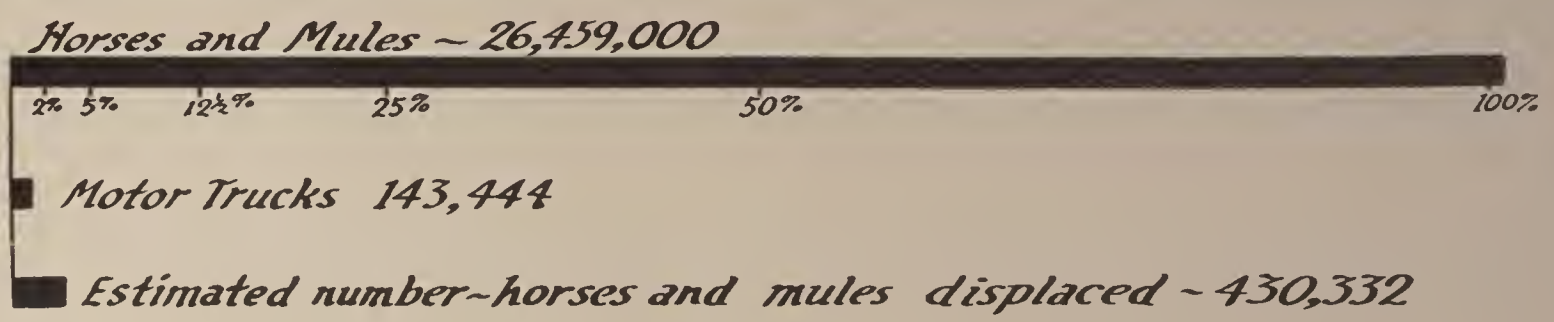
Chart #16

Showing the Relation of the Estimated Number of Motor Trucks on Farms~ to Number of Work Animals.

Jan. 1st 1919



More than 184 times as many horses and mules as motor trucks on our farms.

Number ~ Motor ~ Trucks ~ 143,444

Estimate as to number of horses and mules displaced by each truck ~ 3

Total Estimated Displacement 430,332

Relation estimated number displaced bears total ~ 1.7%

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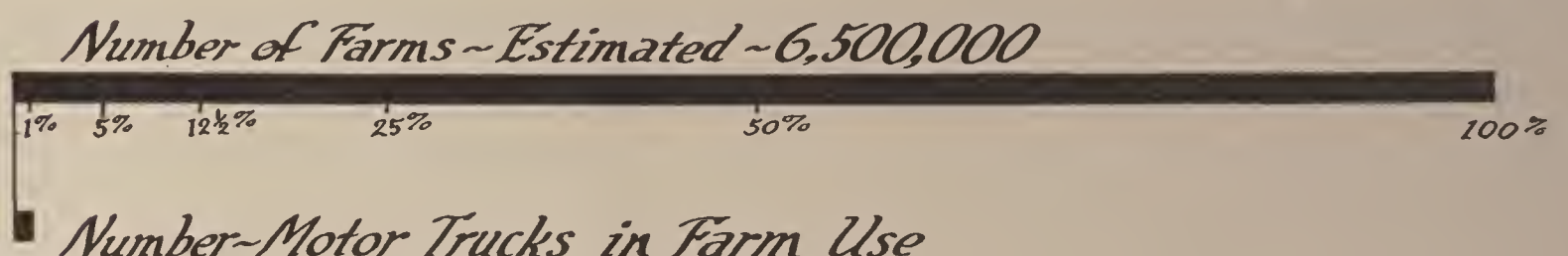
Chart # 17

Showing the Relation of the Estimated Number of Motor Trucks on Farms to the Number of Farms

Jan. 1st 1919



1 Motor Truck to Every 48 Farms

Number of Farms 1919
(Conservative Estimate) 6,500,000

Number of Motor Trucks on Farms
(Liberal Estimate) — 143,444

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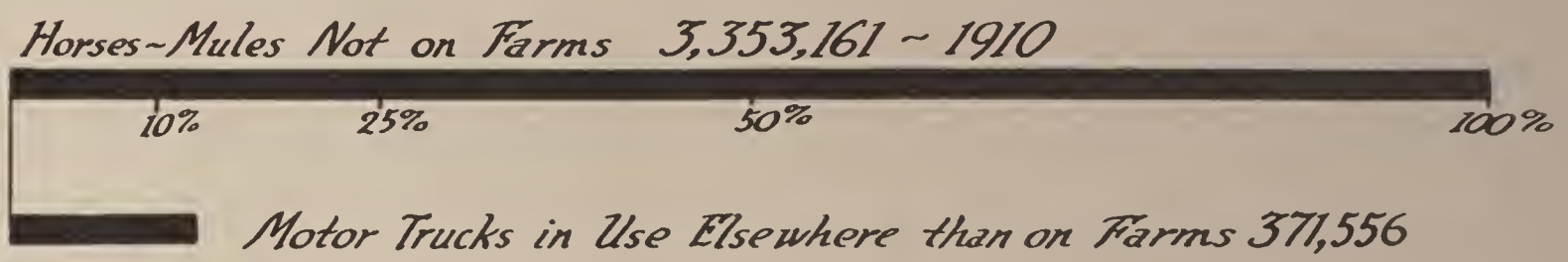
Detroit ~ Chicago

Chart # 18

Showing Relation Number Motor Trucks Not on Farms Jan, 1st 1919 To Number Horses and Mules Not on Farms 1910



More than 9 times as many horses and mules as motor trucks in non agricultural service.

Number horses-mules (In agricultural service 1910)-3,353,161

Motor trucks in use Jan, 1919-371,556
(Not including 143,444 trucks in farm service)

Figures on motor trucks in use from-Facts and Figures Automobile Industry Also Motor List Estimate

Figures on trucks in farm use based on B.F. Goodrich Co:s Estimate.

Later figures than 1910 census not available as to number of horses and mules not on farms. Although average yearly increase 1900-1910 was 24,237-there probably has been no change either in the way of increase or decrease since 1910

By-The Green-Fulton-Cunningham Co. Detroit-Chicago

Map #1

Showing Percentage of Increase or Decrease Number of Horses & Mules 1900-1910

UPPER FIGURES -1900
LOWER " 1910

☐ *In these states the number of horses and mules increased.*

▨ *" " " " " " " " " decreased.*

By-The Green-Fulton-Cunningham Co
Detroit-Chicago

Map #2

Showing Percentage of Increase or Decrease in Population 1900-1910

UPPER FIGURE ~1900
LOWER " ~1910
☐ States in which horse & mule increase kept pace with or exceeded population increase.
▨ " " " " " " " failed to keep pace with population increase.

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Detroit~ Chicago

Map #3

Showing the Increase or Decrease in Improved Acreage 1900-1910

UPPER FIGURES ~ 1900
LOWER " ~ 1910

☐ States where horse and mule increase kept pace with or exceeded increase in improved acreage or where decrease was not as great as acreage decrease.

▨ States where horse and mule increase failed to keep pace, or where horse and mule decrease was greater than acreage decrease.

TOTAL 1900 ~ 414,498,487
" 1910 ~ 478,451,750

Taken from Statistical Abstract of United States 1918

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Detroit-Chicago

Map #4

Showing Percentage of Increase or Decrease in Number of Farms From 1900-1910

UPPER FIGURES-1900
LOWER " -1910

☐ States where horse and mule increase kept pace with or exceeded increase in number of farms.

▨ " " " " " " failed to keep pace with increase in number of farms.

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Detroit-Chicago

Map *5

Showing Percentage of Increase or Decrease Number of Horses and Mules 1910-1919

UPPER FIGURES -1910
LOWER " -1919

☐ In these states the number of horses and mules increased.
▨ " " " " " " " " " decreased.

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Detroit-Chicago

Map #6

Showing Percentage of Increase or Decrease in Population 1910-1919

UPPER FIGURES -1910
LOWER " -1919

☐ States where horse and mule increase kept pace or exceeded population increase.
▨ " " " " " " failed to keep pace with " "

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Detroit-Chicago

Map #7

Showing Percentage of Increase in Number of Farms 1910-1919

It is not thought the number of farms has changed since the 1918 estimate.

UPPER FIGURES ~ 1910
LOWER " ~ 1919

☐ *States where horse and mule increase kept pace with or was greater than farm increase.*

▨ *" " " " " " failed to keep pace with farm increase.*

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Detroit-Chicago

Map #8

Number of Horses & Mules Not on Farms 1910 Showing Percentage of Increase or Decrease Over 1900

UPPER FIGURES ~1900
LOWER " ~1910
States of increase
" " decrease

1900 ~ Total ~ 3,110,789
1910 ~ " ~ 3,353,161
95% horses ~ 5% mules

1900-1910
Yearly Increase
24,237

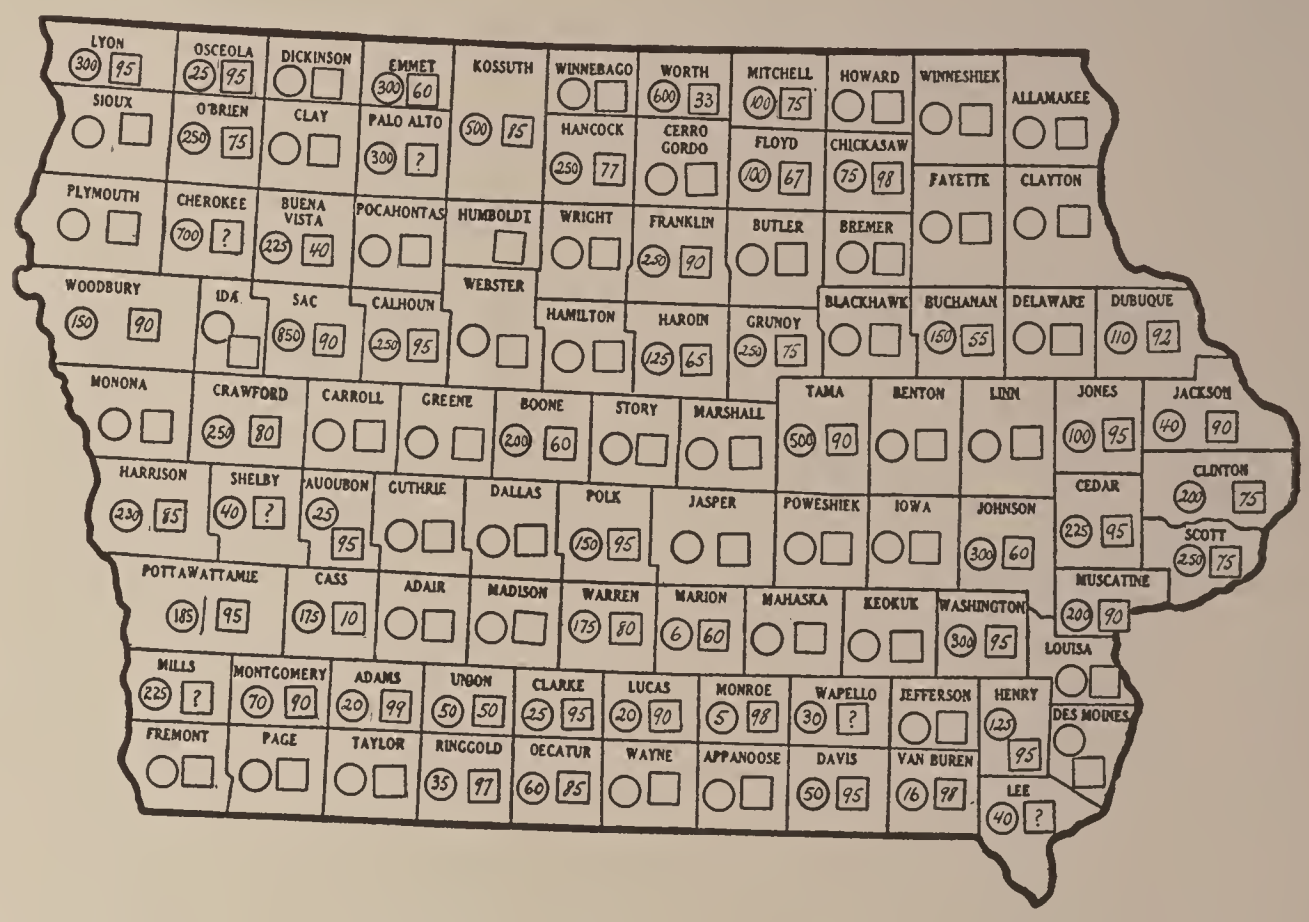
Percentage of increase
1900 ~ 1910 ~ 7%

By ~ The Green-Fulton-Cunningham Co.
Detroit ~ Chicago

Map #9

Effect of the Tractor on the Horse in Iowa

As Indicated by County Agents' Reports



○ Number in Circle = Estimated Number of Tractors in County.

□ Number in Square = Estimated Percentage of All Farm Work Still Done by Horses.

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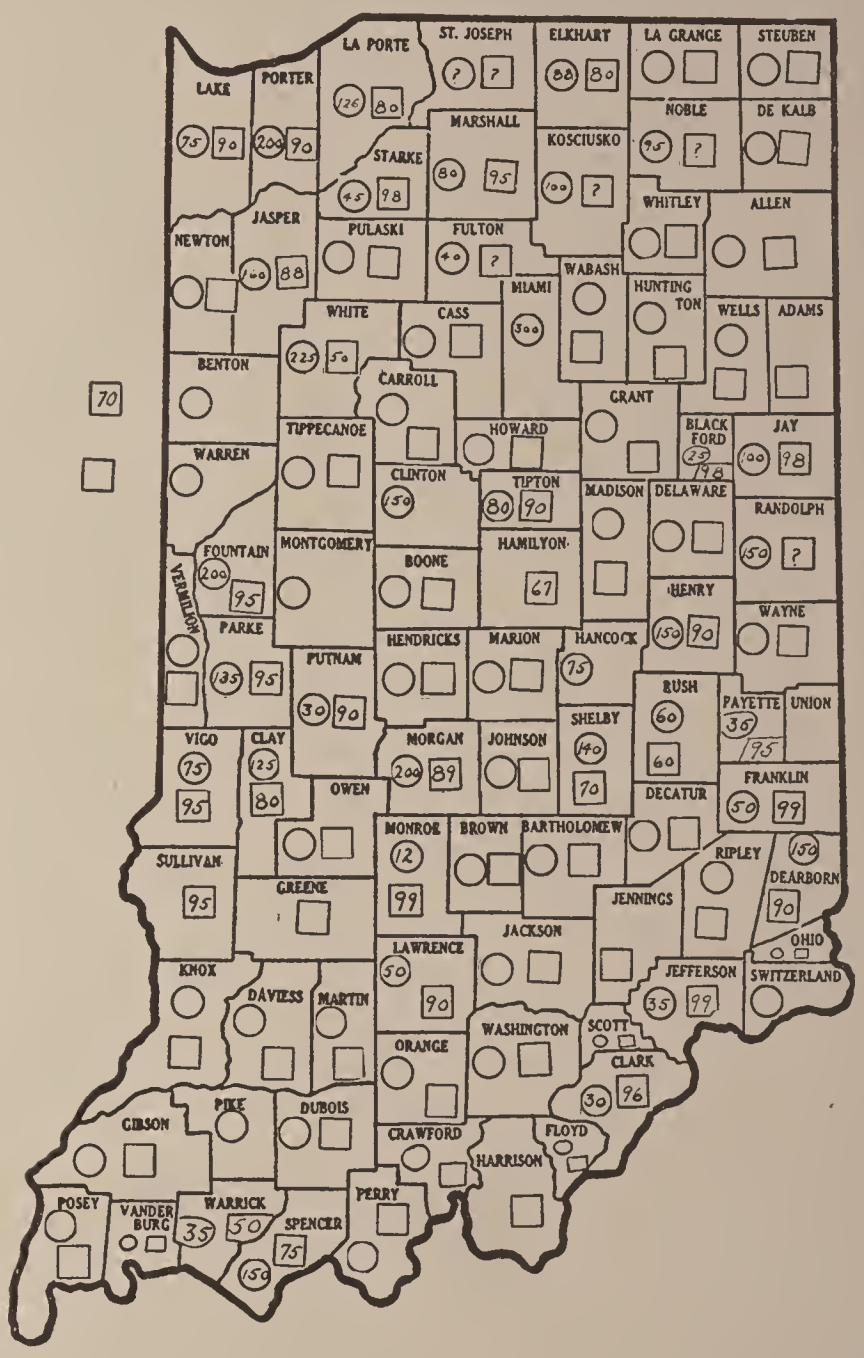
Map #10

Effect of the Tractor on the Horse in Indiana

As Indicated by County Agents' Reports



○ *Number in Circle = Estimated Number of Tractors in County.*

□ *Number in Square = Estimated Percentage of <u>All</u> Farm Work Still Done by Horses.*

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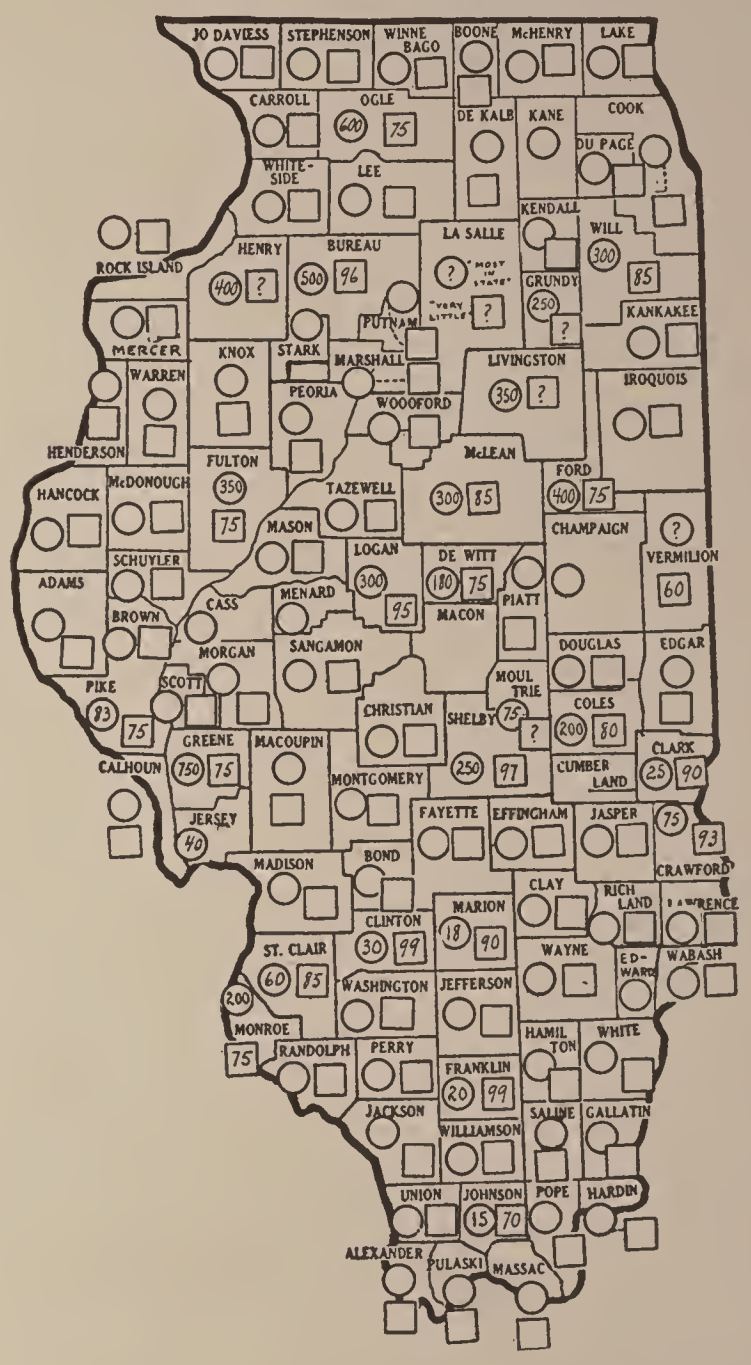
Map #11

Effect of Tractor on the Horse in Illinois

As Indicated by County Agents' Reports.



○ Number in Circle = Estimated Number of Tractors in County

□ Number in Square = Estimated Percentage of All Farm Work Still Done by Horses.

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